

## **STIC Biotechnology Systems Branch**

### **RAW SEQUENCE LISTING ERROR REPORT**

**The Biotechnology Systems Branch of the Scientific and Technical Information Center (STIC) detected errors when processing the following computer readable form:**

Application Serial Number: 10/577,613  
Source: JFWP  
Date Processed by STIC: 05/11/2006

**THE ATTACHED PRINTOUT EXPLAINS DETECTED ERRORS.**

**PLEASE FORWARD THIS INFORMATION TO THE APPLICANT BY EITHER:**

- 1) **INCLUDING A COPY OF THIS PRINTOUT IN YOUR NEXT COMMUNICATION TO THE APPLICANT, WITH A NOTICE TO COMPLY or,**
- 2) **TELEPHONING APPLICANT AND FAXING A COPY OF THIS PRINTOUT, WITH A NOTICE TO COMPLY**

**FOR CRF SUBMISSION AND PATENTIN SOFTWARE QUESTIONS, PLEASE CONTACT MARK SPENCER, TELEPHONE: 571-272-2510; FAX: 571-273-0221**

**TO REDUCE ERRORED SEQUENCE LISTINGS, PLEASE USE THE CHECKER VERSION 4.4.0 PROGRAM, ACCESSIBLE THROUGH THE U.S. PATENT AND TRADEMARK OFFICE WEBSITE. SEE BELOW FOR ADDRESS:**

**<http://www.uspto.gov/web/offices/pac/checker/chkrnote.htm>**

Applicants submitting genetic sequence information electronically on diskette or CD-Rom should be aware that there is a possibility that the disk/CD-Rom may have been affected by treatment given to all incoming mail.

Please consider using alternate methods of submission for the disk/CD-Rom or replacement disk/CD-Rom.

Any reply including a sequence listing in electronic form should NOT be sent to the 20231 zip code address for the United States Patent and Trademark Office, and instead should be sent via the following to the indicated addresses:

1. **EFS-Bio (<http://www.uspto.gov/ebc/efs/downloads/documents.htm>), EFS Submission User Manual - ePAVE)**
2. **U.S. Postal Service: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450**
3. **Hand Carry, Federal Express, United Parcel Service, or other delivery service (EFFECTIVE 01/14/05): U.S. Patent and Trademark Office, Mail Stop Sequence, Customer Window, Randolph Building, 401 Dulany Street, Alexandria, VA 22314**

Revised 01/10/06

## Raw Sequence Listing Error Summary

---

<u>ERROR DETECTED</u>	<u>SUGGESTED CORRECTION</u>	<u>SERIAL NUMBER:</u> _____
<b>ATTN: NEW RULES CASES: PLEASE DISREGARD ENGLISH "ALPHA" HEADERS, WHICH WERE INSERTED BY PTO SOFTWARE</b>		
1 <input type="checkbox"/> Wrapped Nucleic Wrapped Aminos	The number/text at the end of each line "wrapped" down to the next line. This may occur if your file was retrieved in a word processor <b>after</b> creating it. Please adjust your right margin to .3; this will prevent "wrapping."	
2 <input type="checkbox"/> Invalid Line Length	The rules require that a line <b>not exceed</b> 72 characters in length. This includes white spaces.	
3 <input type="checkbox"/> Misaligned Amino Numbering	The numbering under each 5 <sup>th</sup> amino acid is misaligned. <b>Do not</b> use tab codes between numbers; use <b>space characters</b> , instead.	
4 <input type="checkbox"/> Non-ASCII	The submitted file was <b>not</b> saved in ASCII(DOS) text, as <b>required</b> by the Sequence Rules. <b>Please ensure your subsequent submission is saved in ASCII text.</b>	
5 <input type="checkbox"/> Variable Length	Sequence(s) _____ contain n's or Xaa's representing more than one residue. <b>Per Sequence Rules, each n or Xaa can only represent a single residue.</b> Please present the <b>maximum</b> number of each residue having variable length and indicate in the <220>-<223> section that some may be missing.	
6 <input type="checkbox"/> PatentIn 2.0 "bug"	A "bug" in PatentIn version 2.0 has caused the <220>-<223> section to be missing from amino acid sequences(s) _____. Normally, PatentIn would automatically generate this section from the previously coded nucleic acid sequence. Please manually copy the relevant <220>-<223> section to the subsequent amino acid sequence. <b>This applies to the mandatory &lt;220&gt;-&lt;223&gt; sections for Artificial or Unknown sequences.</b>	
7 <input type="checkbox"/> Skipped Sequences (OLD RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for <b>each</b> skipped sequence: (2) INFORMATION FOR SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) (i) SEQUENCE CHARACTERISTICS: (Do not insert any subheadings under this heading) (xi) SEQUENCE DESCRIPTION:SEQ ID NO:X: (insert SEQ ID NO where "X" is shown) This sequence is intentionally skipped Please also adjust the "(ii) NUMBER OF SEQUENCES:" response to <b>include</b> the skipped sequences.	
8 <input type="checkbox"/> Skipped Sequences (NEW RULES)	Sequence(s) _____ missing. If intentional, please insert the following lines for <b>each</b> skipped sequence. <210> sequence id number <400> sequence id number 000	
9 <input type="checkbox"/> Use of n's or Xaa's (NEW RULES)	Use of n's and/or Xaa's have been detected in the Sequence Listing. Per 1.823 of Sequence Rules, use of <220>-<223> is <b>MANDATORY</b> if n's or Xaa's are present. In <220> to <223> section, please explain location of n or Xaa, and which residue n or Xaa represents.	
10 <input type="checkbox"/> Invalid <213> Response	Per 1.823 of Sequence Rules, the only <b>valid</b> <213> responses are: Unknown, Artificial Sequence, or scientific name (Genus/species). <220>-<223> section is <b>required</b> when <213> response is Unknown or is Artificial Sequence. (see item 11 below)	
11 <input type="checkbox"/> Use of <220>	<u>Sequence(s) _____ missing the &lt;220&gt; "Feature" and associated numeric identifiers and responses. Use of &lt;220&gt; to &lt;223&gt; is MANDATORY if &lt;213&gt; "Organism" response is "Artificial Sequence" or "Unknown." Please explain source of genetic material in &lt;220&gt; to &lt;223&gt; section or use "chemically synthesized" as explanation. (See "Federal Register," 06/01/1998, Vol. 63, No. 104, pp. 29631-32), also Sec. 1.823 of Sequence Rules</u>	
12 <input type="checkbox"/> PatentIn 2.0 "bug"	Please do not use "Copy to Disk" function of PatentIn version 2.0. This causes a corrupted file, resulting in missing mandatory numeric identifiers and responses (as indicated on raw sequence listing). Instead, please use "File Manager" or any other manual means to copy file to floppy disk.	
13 <input type="checkbox"/> Misuse of n/Xaa	"n" can <b>only</b> represent a single <u>nucleotide</u> ; "Xaa" can <b>only</b> represent a single <u>amino acid</u>	



IFWP

**RAW SEQUENCE LISTING**  
PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006  
TIME: 11:18:49

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\05112006\J577613.raw

3 <110> APPLICANT: Alexander, Cherkasky  
5 <120> TITLE OF INVENTION: PCT/IB 2004/003536: CHERKASKY FUSION PROTEINS CONTAINING  
ANTIBODY-,

6 ANTIGEN - AND MICROTUBULE - BINDING REGIONS AND IMMUNE RESPONSE - TRIGGERIND  
7 REGIONS  
9 <130> FILE REFERENCE: -  
C--> 11 <140> CURRENT APPLICATION NUMBER: US/10/577,613  
C--> 11 <141> CURRENT FILING DATE: 2006-04-28  
11 <160> NUMBER OF SEQ ID NOS: 14  
13 <170> SOFTWARE: PatentIn version 3.3  
15 <210> SEQ ID NO: 1  
16 <211> LENGTH: 676  
17 <212> TYPE: PRT  
C--> 18 <213> ORGANISM: Artificial sequence  
W--> 20 <220> FEATURE:  
W--> 20 <223> OTHER INFORMATION:  
W--> 20 <400> 1

22 Ala Ala Gln His Asp Glu Ala Gln Gln Asn Ala Phe Tyr Gln Val Leu  
23 1 5 10 15  
26 Asn Met Pro Asn Leu Asn Ala Asp Gln Arg Asn Gly Phe Ile Gln Ser  
27 20 25 30  
30 Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn Val Leu Gly Glu Ala Lys  
31 35 40 45  
34 Lys Leu Asn Glu Ser Gln Ala Pro Lys Ala Asp Asn Asn Phe Asn Lys  
35 50 55 60  
38 Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn Leu Asn  
39 65 70 75 80  
42 Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser  
43 85 90 95  
46 Gln Ser Ala Asn Leu Leu Ser Glu Ala Lys Lys Leu Asn Glu Ser Gln  
47 100 105 110  
50 Ala Pro Lys Ala Asp Asn Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe  
51 115 120 125  
54 Tyr Glu Ile Leu His Leu Pro Asn Leu Asn Glu Glu Gln Arg Asn Gly  
55 130 135 140  
58 Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn Leu Leu  
59 145 150 155 160  
62 Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro Lys Ala Asp Asn  
63 165 170 175  
66 Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu  
67 180 185 190  
70 Pro Asn Leu Thr Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys  
71 195 200 205  
74 Asp Asp Pro Ser Val Ser Lys Glu Ile Leu Ala Glu Ala Lys Lys Leu

(pg-6)  
Does Not Comply  
Corrected Diskette Needed

Cpg-1,31415  
Responses are Artificial  
or Unknown. Pls Explain the  
Source of genetic Material.  
See Item # 11  
on Error  
Summary  
Sheet.

**RAW SEQUENCE LISTING**  
**PATENT APPLICATION: US/10/577,613**

**DATE: 05/11/2006**  
**TIME: 11:18:49**

**Input Set : A:\PTO.RJ.txt**  
**Output Set: N:\CRF4\05112006\J577613.raw**

75	210	215	220
78	Asn Asp Ala Gln Ala Pro Lys Glu Glu Asp Asn Asn Lys Pro Gly Lys		
79	225	230	235
82	Glu Asp Gly Asn Lys Pro Gly Lys Glu Asp Gly Asn Gly Gly Gly		240
83	245	250	255
86	Gly Met Ser Pro Phe Pro Leu Thr Ser Met Asp Lys Ala Phe Ile Thr		
87	260	265	270
90	Val Leu Glu Met Thr Pro Val Leu Gly Thr Glu Ile Ile Asn Tyr Arg		
91	275	280	285
94	Asp Gly Met Gly Arg Val Leu Ala Gln Asp Val Tyr Ala Lys Asp Asn		
95	290	295	300
98	Leu Pro Pro Phe Pro Ala Ser Val Lys Asp Gly Tyr Ala Val Arg Ala		
99	305	310	315
102	Ala Asp Gly Pro Gly Asp Arg Phe Ile Ile Gly Glu Ser Gln Ala Gly		
103	325	330	335
106	Glu Gln Pro Thr Gln Thr Val Met Pro Gly Gln Val Met Arg Val Thr		
107	340	345	350
110	Thr Gly Ala Pro Ile Pro Cys Gly Ala Asp Ala Val Val Gln Val Glu		
111	355	360	365
114	Asp Thr Glu Leu Ile Arg Glu Ser Asp Asp Gly Thr Glu Glu Leu Glu		
115	370	375	380
118	Val Arg Ile Leu Val Gln Ala Arg Pro Gly Gln Asp Ile Arg Pro Ile		
119	385	390	395
122	Gly His Asp Ile Lys Arg Gly Glu Cys Val Leu Ala Lys Gly Thr His		
123	405	410	415
126	Met Gly Pro Ser Glu Ile Gly Leu Leu Ala Thr Val Gly Val Thr Glu		
127	420	425	430
130	Val Glu Val Asn Lys Phe Pro Val Val Ala Val Met Ser Thr Gly Asn		
131	435	440	445
134	Glu Leu Leu Asn Pro Glu Asp Asp Leu Leu Pro Gly Lys Ile Arg Asp		
135	450	455	460
138	Ser Asn Arg Ser Thr Leu Leu Ala Thr Ile Gln Glu His Gly Tyr Pro		
139	465	470	475
142	Thr Ile Asn Leu Gly Ile Val Gly Asp Asn Pro Asp Asp Leu Leu Asn		
143	485	490	495
146	Ala Leu Asn Glu Gly Ile Ser Arg Ala Asp Val Ile Ile Thr Ser Gly		
147	500	505	510
150	Gly Val Ser Met Gly Glu Lys Asp Tyr Leu Lys Gln Val Leu Asp Ile		
151	515	520	525
154	Asp Leu His Ala Gln Ile His Phe Gly Arg Val Phe Met Lys Pro Gly		
155	530	535	540
158	Leu Pro Thr Thr Phe Ala Thr Leu Asp Ile Asp Gly Val Arg Lys Ile		
159	545	550	555
162	Ile Phe Ala Leu Pro Gly Asn Pro Val Ser Ala Val Val Thr Cys Asn		
163	565	570	575
166	Leu Phe Val Val Pro Ala Leu Arg Lys Met Gln Gly Ile Leu Asp Pro		
167	580	585	590
170	Arg Pro Thr Ile Ile Lys Ala Arg Leu Ser Cys Asp Val Lys Leu Asp		
171	595	600	605

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006  
TIME: 11:18:49

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\05112006\J577613.raw

174 Pro Arg Pro Glu Tyr His Arg Cys Ile Leu Thr Trp His His Gln Glu  
175 610 615 620  
178 Pro Leu Pro Trp Ala Gln Ser Thr Gly Asn Gln Met Ser Ser Arg Leu  
179 625 630 635 640  
182 Met Ser Met Arg Ser Ala Asn Gly Leu Leu Met Leu Pro Pro Lys Thr  
183 645 650 655  
186 Glu Gln Tyr Val Glu Leu His Lys Gly Glu Val Val Asp Val Met Val  
187 660 665 670  
190 Ile Gly Arg Leu  
191 675  
194 <210> SEQ ID NO: 2  
195 <211> LENGTH: 2092  
196 <212> TYPE: DNA  
C--> 197 <213> ORGANISM: Artificial sequence  
W--> 199 <220> FEATURE:  
W--> 199 <223> OTHER INFORMATION:  
W--> 199 <400> 2

200 tgctgcgcaa cacgatgaag ctcacaaaaa cgcttttat caagtctaa atatgcctaa 60  
202 cttaaatgct gatcaacgca atggttttat ccaaagcctt aaagatgatc caagccaaag 120  
204 tgctaaccgtt ttaggtgaag ctaaaaaatt aaacgaatct caagcacccg aagctgacaa 180  
206 caatttcaac aaagaacaac aaaatgctt ctatgaaatc ttgaacatgc ctaacttgaa 240  
208 cgaagaacaa cgcaatggtt tcataccaaag cttaaaagat gacccaagtc aaagtctaa 300  
210 cctattgtca gaagctaaaa agttaaatga atctcaagca ccgaaagccg ataacaatt 360  
212 caacaaagaa caacaaaatg ctttctatga aatcttacat ttacctaact taaacgaaga 420  
214 acaacgcaat ggttcatcc aaagcctaaa agatgacccca agccaaagcg ctaaccttt 480  
216 agcagaagct aaaaagctaa atgatgcaca agcacaaaaa gctgacaaca aattcaacaa 540  
218 agaacaacaa aatgctttct atgaaatttt acatttacct aacttaactg aagagcaacg 600  
220 taacggcttc atccaaagcc ttaaagacga tccttcagtg agcaaagaaa ttttagcaga 660  
222 agctaaaaag ctaaacgatg ctcaagcacc aaaagaggaa gacaacaaca aacctggtaa 720  
224 agaagacggc aacaaacctg gcaaagaaga cggttaacggc ggcggcgccg gcgtttaggt 780  
226 cacagtctg tcgatatatc caaggtggct agaagacatc gcatgtctcc tttcctctg 840  
228 acatctatgg acaaagcctt tatcacagtc ctggagatga ctccgggtct tggacagaa 900  
230 atcatcaatt accgagatgg aatggggcga gtccttgc taaatgtata tgcaaaagac 960  
232 aatttacccc cttcccccgc atcagtaaaa gatgctatg ctgtccgagc tgctgatggc 1020  
234 ccaggagatc gttcatcat tgggaatcc caagctggtg aacagccaaac tcagacagta 1080  
236 atgccaggac aagtcatgog ggttacaaca ggtgtccaa taccctgcgg tgctgatgca 1140  
238 gtatgatcag tggaaagatac cgaacttatac aggaaatcag atgatggcac tgaagaactt 1200  
240 gaagtgcgaa ttctgggtca agctcgccca ggcggccata tcagaccat cggccatgac 1260  
242 attaaaaagag gggaaatgtgt tttggccaaa ggaacccaca tggggccctc agagattgg 1320  
244 ctctggcaa ctgttaggtgt cacagaggtt gaagttataa agttccagt ggttgcagtc 1380  
246 atgtcaacag ggaatgagct gctaaatcct gaagatgacc tcttaccagg gaagattcga 1440  
248 gacagcaatc gttcaactct tctagcaaca attcaggaac atggttaccc cacatcaac 1500  
250 ttgggtattt taggagacaa cccagatgac ttactcaatg cttgtatga gggatcagt 1560  
252 cgtgctgatg tcatcatcac atcagggggt gtatccatgg gggaaaaagga ctatctcaag 1620  
254 cagggtctgg acattgatct tcatgctcag atccattttg gcagggttt tatgaaaccca 1680  
256 ggcttgccaa caacattgc aactttggat attgatggtg taagaaaaat aatcttgca 1740  
258 ctacctggga atcctgtatc ggctgtggc acctgcaatc tctttgttgc gcctgcactg 1800  
260 agaaaaatgc agggcatctt ggatcctcgg ccaaccatca tcaaagcaag gttatcatgt 1860  
262 gatgtaaaaac ttgatcctcg tccagaatac catcggtgt tactaacttg gcatcaccaa 1920

*Same Error*

RAW SEQUENCE LISTING  
PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006  
TIME: 11:18:49

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\05112006\J577613.raw

264 gaaccactac cttgggcaca gagtacagg aatcaaatga gcagccgtct gatgagcatg 1980  
266 cgcaagtgcaca atggattgtt gatgtacactt ccaaagacag aacagtacgt ggagctccac 2040  
268 aaaggcgagg tggtgatgt catggcatt ggacggctat gatggtcacc ag 2092

271 <210> SEQ ID NO: 3

272 <211> LENGTH: 300

273 <212> TYPE: PRT

C--> 274 <213> ORGANISM: Artifical sequence → Same Error

277 <220> FEATURE:

278 <221> NAME/KEY: misc\_feature

279 <222> LOCATION: (264)..(264)

280 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

282 <220> FEATURE:

283 <221> NAME/KEY: misc\_feature

284 <222> LOCATION: (278)..(278)

285 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

287 <220> FEATURE:

288 <221> NAME/KEY: misc\_feature

289 <222> LOCATION: (281)..(281)

290 <223> OTHER INFORMATION: Xaa can be any naturally occurring amino acid

292 <400> SEQUENCE: 3

294 Ala Ala Gln His Asp Glu Ala Gln Gln Asn Ala Phe Tyr Gln Val Leu

295 1 5 10 15

298 Asn Met Pro Asn Leu Asn Ala Asp Gln Arg Asn Gly Phe Ile Gln Ser

299 20 25 30

302 Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn Val Leu Gly Glu Ala Lys

303 35 40 45

306 Lys Leu Asn Glu Ser Gln Ala Pro Lys Ala Asp Asn Asn Phe Asn Lys

307 50 55 60

310 Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu Asn Met Pro Asn Leu Asn

311 65 70 75 80

314 Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser

315 85 90 95

318 Gln Ser Ala Asn Leu Leu Ser Glu Ala Lys Lys Leu Asn Glu Ser Gln

319 100 105 110

322 Ala Pro Lys Ala Asp Asn Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe

323 115 120 125

326 Tyr Glu Ile Leu His Leu Pro Asn Leu Asn Glu Glu Gln Arg Asn Gly

327 130 135 140

330 Phe Ile Gln Ser Leu Lys Asp Asp Pro Ser Gln Ser Ala Asn Leu Leu

331 145 150 155 160

334 Ala Glu Ala Lys Lys Leu Asn Asp Ala Gln Ala Pro Lys Ala Asp Asn

335 165 170 175

338 Lys Phe Asn Lys Glu Gln Gln Asn Ala Phe Tyr Glu Ile Leu His Leu

339 180 185 190

342 Pro Asn Leu Thr Glu Glu Gln Arg Asn Gly Phe Ile Gln Ser Leu Lys

343 195 200 205

346 Asp Asp Pro Ser Val Ser Lys Glu Ile Leu Ala Glu Ala Lys Lys Leu

347 210 215 220

350 Asn Asp Ala Gln Ala Pro Lys Glu Glu Asp Asn Asn Lys Pro Gly Lys

## RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006

TIME: 11:18:49

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\05112006\J577613.raw

```

351 225          230          235          240
354 Glu Asp Gly Asn Lys Pro Gly Lys Glu Asp Gly Asn Gly Gly Gly
355          245          250          255
W--> 358 Gly Ala Ala Ala Ser Thr Ala Xaa Ala Ser Thr Ala Lys Glu Thr Ala
359          260          265          270
W--> 362 Glu Ala Val Ala Asp Xaa Ile Leu Xaa Lys Ala Gly Pro Leu Val Ala
363          275          280          285
366 Val Ser Ala Val Ala Leu Asp Ile Thr Ala Tyr Pro
367          290          295          300
370 <210> SEQ ID NO: 4
371 <211> LENGTH: 912
372 <212> TYPE: DNA
C--> 373 <213> ORGANISM: Artificial sequence
376 <220> FEATURE:
377 <221> NAME/KEY: misc_feature
378 <222> LOCATION: (792)..(792)
379 <223> OTHER INFORMATION: n is a, c, g, t or u
381 <220> FEATURE:
382 <221> NAME/KEY: misc_feature
383 <222> LOCATION: (835)..(835)
384 <223> OTHER INFORMATION: n is a, c, g, t or u
386 <220> FEATURE:
387 <221> NAME/KEY: misc_feature
388 <222> LOCATION: (844)..(844)
389 <223> OTHER INFORMATION: n is a, c, g, t or u
391 <400> SEQUENCE: 4
392 tgctgcgcaa cacgatgaag ctcaacaaaa cgcttttat caagtcttaa atatgcctaa      60
394 cttaaatgct gatcaacgca atggttttat ccaaaggcctt aaagatgatc caagccaaag     120
396 tgctaacgtt ttaggtgaag ctaaaaaatt aaacaaatct caagcacccg aagctgacaa     180
398 caatttcaac aaagaacaac aaaatgctt ctatgaaatc ttgaacatgc ctaacttgaa     240
400 cgaagaacaa cgcaatggtt tcatccaaag cttaaaagat gaccsaagtc aaagtgcataa     300
402 cctattgtca gaagctaaaa agttaaatga atctcaagca ccgaaaagccg ataacaatt     360
404 caacaaagaa caacaaaatg ctttctatga aatcttacat ttacctaact taaacgaaga     420
406 acaacgcaat ggtttcatcc aaagcctaaa agatgaccga agccaaagcg ctaacccttt     480
408 agcagaagct aaaaagctaa atgatgcaca agcaccaaaa gctgacaaca aattcaacaa     540
410 agaacaacaa aatgctttct atgaaattt acatttacat aacttaactg aagagcaacg     600
412 taacggcttc atccaaagcc ttaaagacga tccttcagtg agcaaagaaa ttttagcaga     660
414 agctaaaaag ctaaacgatg ctcaagcacc aaaagaggaa gacaacaaca aacctggtaa     720
416 agaagacggc aacaaacctg gcaaagaaga cgtaacggc ggcggcggcg ggcggccgc     780
W--> 418 gtcgaccgcg gnccgctcga cggcaaaggaa gactgctgag gctgttgctg atganatact    840
W--> 420 gganaaggct gggccacttg ttgctgtgtc tgctgttgca cttgatataa ctgcctaccc    900
422 ctaaaagcca aa
425 <210> SEQ ID NO: 5
426 <211> LENGTH: 3718
427 <212> TYPE: DNA
C--> 428 <213> ORGANISM: Artificial sequence
W--> 430 <220> FEATURE:
W--> 430 <223> OTHER INFORMATION:
W--> 430 <400> 5

```

The type of errors shown exist throughout  
the Sequence Listing. Please check subsequent  
sequences for similar errors.

RAW SEQUENCE LISTING ERROR SUMMARY  
PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006  
TIME: 11:18:50

Input Set : A:\PTO.RJ.txt  
Output Set: N:\CRF4\05112006\J577613.raw

Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:3; Xaa Pos. 264,278,291  
Seq#:4; N Pos. 792,835,844  
Seq#:8; N Pos. 488,531,540  
Seq#:9; N Pos. 440,483,492  
Seq#:12; N Pos. 792,835,844

Use of <220> Feature(NEW RULES):

Sequence(s) are missing the <220> Feature and associated headings.  
Use of <220> to <223> is MANDATORY if <X13> ORGANISM is "Artificial Sequence"  
or "Unknown". Please explain source of genetic material in <220> to <223>  
section (See "Federal Register," 6/01/98, Vol. 63, No. 104, pp.29631-32)  
(Sec.1.823 of new Rules)

Seq#:1,2,5,6,7,10,11,13,14

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006

TIME: 11:18:50

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\05112006\J577613.raw

L:11 M:270 C: Current Application Number differs, Replaced Current Application No  
L:11 M:271 C: Current Filing Date differs, Replaced Current Filing Date  
L:18 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:1  
L:20 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:1, <213>  
ORGANISM:Artificial Sequence  
L:20 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:1, <213>  
ORGANISM:Artificial Sequence  
L:20 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:1,Line#:20  
L:197 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:2  
L:199 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:2, <213>  
ORGANISM:Artificial Sequence  
L:199 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:2, <213>  
ORGANISM:Artificial Sequence  
L:199 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:2,Line#:199  
L:274 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:3  
L:358 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:256  
L:362 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:3 after pos.:272  
L:373 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:4  
L:418 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:780  
L:420 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4 after pos.:840  
L:428 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:5  
L:430 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:5, <213>  
ORGANISM:Artificial Sequence  
L:430 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:5, <213>  
ORGANISM:Artificial Sequence  
L:430 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:5,Line#:430  
L:559 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:6  
L:561 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:6, <213>  
ORGANISM:Artificial Sequence  
L:561 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:6, <213>  
ORGANISM:Artificial Sequence  
L:561 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:6,Line#:561  
L:652 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:7  
L:654 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:7, <213>  
ORGANISM:Artificial Sequence  
L:654 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:7, <213>  
ORGANISM:Artificial Sequence  
L:654 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:7,Line#:654  
L:743 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:8  
L:778 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:8 after pos.:480  
L:812 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:9  
L:845 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:420  
L:847 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:9 after pos.:480  
L:881 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:10  
L:883 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:10, <213>  
ORGANISM:Artificial Sequence  
L:883 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:10, <213>  
ORGANISM:Artificial Sequence  
L:883 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:10,Line#:883  
L:1028 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:11  
L:1030 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:11, <213>  
ORGANISM:Artificial Sequence  
L:1030 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:11, <213>

ORGANISM:Artificial Sequence

L:1030 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:11,Line#:1030  
L:1173 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:12  
L:1218 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:780  
L:1220 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:12 after pos.:840  
L:1252 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:13  
L:1254 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:13, <213>  
ORGANISM:Artificial Sequence  
L:1254 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:13, <213>  
ORGANISM:Artificial Sequence  
L:1254 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:13,Line#:1254

**VERIFICATION SUMMARY**

PATENT APPLICATION: US/10/577,613

DATE: 05/11/2006

TIME: 11:18:50

Input Set : A:\PTO.RJ.txt

Output Set: N:\CRF4\05112006\J577613.raw

L:1355 M:220 C: Keyword misspelled or invalid format, <213> ORGANISM for SEQ ID#:14

L:1357 M:258 W: Mandatory Feature missing, <220> Tag not found for SEQ#:14, <213>

ORGANISM:Artificial Sequence

L:1357 M:258 W: Mandatory Feature missing, <223> Tag not found for SEQ#:14, <213>

ORGANISM:Artificial Sequence

L:1357 M:258 W: Mandatory Feature missing, <223> Blank for SEQ#:14,Line#:1357